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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/024,727
Filing Date: December 21, 2001
Appellant(s): COLEMAN, ROBERT M.

Jeannette M. Walder
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 4, 2006 appealing from the Office action mailed October 19, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,704,021 Smith et al. 12-1997

PCL 5 Color Technical Reference Manual

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Smith ('021) in view of PCL 5 Color Technical Reference Manual.

For completeness, the rejection, as set forth in the Final Office action, dated 10/19/05, is duplicated below.

Regarding claim 1, Smith ('021) discloses having a printing system that includes a printer (See Figure 11), a print driver in order to communicate with the computer, and application software operating in a host computer (See Col. 5, Line 63-66). Smith also has a user interface (See Figure 4, Element 63) to have the first option, or manual color according to Smith ('021), which allows the user to associate the printer-independent print-quality characteristics and manually characterize the print color control before outputting (See Figure 5, Element 81), and also a printer-dependent imaging actions involving half toning (See Figure 5, Element 90) whenever the user selects manual color from the printer setup page (See Figure 4, Element 61; Col. 7, Line 17-23; Line 35-39). The printer-independent print-quality characteristic comprises instructions, such as particular settings, for indicating a feature of an image element to be preserved, such as automatic or manual or gray color (See Figure 4, Element 61; Col. 6, Line 4-14). This preserves the feature of color during the image rendering process without actual specifying any printer-specific imaging actions, such as changing the feeding the paper, moving the print head, timing of printing each pixel, amount of each color of ink used for

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each pixel, etc., needed to achieve the feature. A printer control device, or a printer driver according to Smith ('021), is used to implement the selected printer-independent print-quality characteristic and printer-dependent imaging actions (See Figure 5, Element 80; Col. 8, Line 11-16). The printer-dependent imaging actions associated with the printer-independent print-quality characteristic comprise specific imaging actions, such as print color control, half toning and lightness (See Figure 5, Element 80), taken by the printer to achieve the feature of the image element, decided upon by the user, to be preserved during rendering (See Col. 7, Line 16-22).

Smith ('021) does not disclose using a page description language within the printing system.

Hewlett Packard released a color technical reference manual for the PCL 5, which stands for printer control language, and is their version of a page description language. Within the reference manual, it details how the PCL 5 is used to print color through commands and output it onto various printers (See Page iii of the reference manual).

It would have been obvious to a person of ordinary skill at the time of invention by the applicant to incorporate all the methods enclosed within the PCL 5 manual into the printing system described by Smith ('021). Smith ('021) discloses one of the preferred printing devices is a HP DeskJet 1200C (See Figure 4; Col. 6, Line 60-61), and it is also one of the printers used within the PCL 5 manual for color printing using the printer control language (See Page iii of the reference manual).

Thus, claim 1 is properly rejected under 35 U.S.C. 103(a).

Regarding claim 2, Smith ('021) discloses having a user interface with the printer-independent printer-quality options for each image object and its type, such as text, graphics, and photos (See Figure 5, Element 81; Col. 7, Line 35-38).

Regarding claim 3, Smith ('021) discloses a user interface with a first option (See Figure 4, Element 63) to select manual color, then a dialog screen (See Figure 5, Element 80') to make sure the user wants to continue. Once it is confirmed, adjustments for the printer-independent printer-quality options can be specifically associated with each object type (See Figure 5, Element 81; Col. 6, Line 4-14).

Regarding claim 4, Smith ('021) discloses having a second option for associating object descriptors within the printer setup, such as fonts (See Figure 4, Element 60), print quality (See Figure 4, Element 65; Col. 6, Line 15-22), look-up table colors (See Figure 5, Element 97), and lightness (See Figure 5, Element 96), which is located within the manual color option (See Figure 4, Element 61) to increase or decrease the color tone (See Col. 7, Line 40-46). These options are related to the object type and printer-independent print-quality characteristics, which a user can customize prior to printing (See Figure 5, Element 80).

Regarding claim 5, Smith ('021) discloses a user interface for selecting automatic or manual color (See Figure 4, Element 61) with a dialog box that appears (See Figure 5, Element 80) to invoke a confirmation to either use the automatic settings or manually adjust them for the various printer-independent print-quality characteristics and printer-dependent imaging actions for each object type (See Figure 4, Element 61; Col. 6, Line 4-14).

Regarding claim 6, Smith ('021) discloses having a lightness (See Figure 5, Element 96) and look-up table colors (See Figure 5, Element 97) for customizing colors of certain areas or adjusting the degree for how dark or light the user wants it (See Col. 7, Line 40-46). The user can also customize the font size (See Figure 4, Element 60) for a text printout, and also the quality a user wants the printout to be (See Figure 4, Element 65; Col. 6, Line 15-22).

Regarding claims 7 and 8, Smith ('021) discloses within the manual color options the printed color control and halftoning (See Figure 5, Element 81 and 90) are selected on an object-by-object basis (See Col. 7, Line 17-2) whereas the lightness and look-up table colors (See Figure 5, Element 96 and 97) are selected on an job-by-job basis (See Col. 7, Line 40-43) within the manual color options (See Figure 5, Element 80). These settings can be done without saving though, so the "Defaults" button is used as a way to have the preset options loaded and saved.

Regarding claim 9, Smith ('021) discloses have a "Defaults" button in the manual color options (See Figure 5, Element 80) to reset all the settings back to the predetermined set (See Col. 8, Line 1-5).

Regarding claim 10, Smith ('021) discloses a second user interface, or the manual color option (See Figure 5, Element 80), which is accessed after the user confirms to continue with the manual color option (See Figure 5, Element 80'). This can allow the user to control what printer-independent print-quality characteristics to select for each object type and associate it with the selected printer-dependent imagine actions (See Figure 5, Element 81 and 90; Col. 6, Line 4-14).

Regarding claim 11, Smith ('021) discloses the second user interface (See Figure 5, Element 80), which includes a second control, or the "Defaults" button (See Figure 5, Element 98) to automatically have a set of predetermined associations for the printer-independent print-quality characteristics with the printer-dependent imaging actions (See Col. 8, Line 1-5). A third control is also used (See Figure 5, Element 81 and 90) to manually associate the printer-independent print-quality characteristics of the desired object type with the printer-dependent imaging actions (See Col. 7, Line 17-23).

Regarding claim 12, Smith ('021) discloses within the second user interface (See Figure 5, Element 80) that a fourth control is used to enhance lighten or add specific colors (See Figure 5, Element 96 and 97) depending on the object type being outputted. It is used to customize the tone or color of the data to the user's liking associated with the type of printer-independent print-quality characteristics chosen (See Col. 7, Line 47-50).

Regarding claim 13, Smith ('021) discloses that one of the printer-independent print-quality characteristics comprise of perceptual colors, or vivid color according to Smith ('021) (See Figure 5, Element 82; Col. 8, Line 17-20).

(10) Response to Argument

The appellant discloses two arguments throughout the appeal brief. The first deals with the specific actions / characteristics of a printer-independent print-quality characteristic, such as "make sharp edges" and "reduce moiré". According to the specification of the appellant on page 7, line 25-26, it is disclosed, "many other printer-independent print-quality characteristics may be defined." Thus, anyone of the

examples disclosed by Smith et al. may be defined as a printer-independent print-quality characteristic also. The appellant also uses these two types of printer-independent print-quality characteristics within the arguments of claims 1-12, but these claims do not disclose those limitations.

The other argument made by the appellant deals with an inexperienced / experienced user. According to the appellant, an inexperienced user would not be able to determine the selections by Smith; only an expert would understand them. On the other hand, an inexperienced user would be able to understand any of the selections the appellant discloses, such as "reduce mottle" or "uniform gloss". This is not persuasive because the present claims do not include any limitation regarding the experience level of the user.

In response to appellant's argument under Heading 1, regarding the rejection of claims 1-12, as being unpatentable over Smith et al. in view of PCL Color Technical Reference Manual, whereby the appellant argues in part (a) on page 8 that the halftone and the color control are specific to the printer. These printer-dependent processes are associated with the imaging actions, whether it relates to text, graphics or photos as seen in Figure 5. By specifying how to customize the image, the user is able to render the image and preserve it prior to outputting the data to the printer. The appellant also discloses a situation for using "reduce moiré" or "make sharp edges", but claims 1-12 do not disclose either limitation of the printer-independent print-quality characteristics, so the argument is not persuasive.

Further in part (b) on page 8-9, appellant argues that selecting a cluster halftone screen does tell the printer how to preserve the image element during rendering. According to column 7, lines 20-23 and 34-38, each action selected for the image, whether it is for text, graphics or photos, allows the printer to achieve the feature of the preserved image element once selected by the user. So, it does not tell the printer how to achieve the rendering of the image element, but rather preserves the image element in order for the printer to correctly output it the way the user intended.

The appellant argues in part (c) and (d) on page 9 that the PCL 5 Color Technical Reference Manual does not suggest a printer-independent print-quality characteristic and that combining this teaching with Smith et al. does not produce the appellant's system. As noted above, Smith teaches printer-independent print-quality characteristics. The PCL 5 Color Technical Reference Manual is used in combination with Smith et al. in order to meet the claim limitation of a "page description language decomposer". Hewlett Packard's version of a page description language is a PCL, which stands for printer control language. The reference manual was used in combination with the HP DeskJet 1200C printer described by Smith et al., as seen in Figure 4 and column 6, line 60-61, and also motivation was provided so it would have been obvious to one of ordinary skill in the art to combine these references. Thus, by combining the two teachings, they are able to meet the claim limitations of the appellant.

In response to appellant's argument under Heading 2, regarding the rejection of claim 13, as being unpatentable over Smith et al., the appellant argues that Smith et al. discloses an HMS type color map, which HMS stands for Harlequin Micro Screening

according to the appellant, and that an inexperienced user would not understand this type of specialty screen. According to Smith et al., as seen in Figure 9, HMS actually refers to a "Hue-Control Machine Space", which is used for vivid color, which is a printer-independent print-quality characteristic used to boost the vibrancy of the hue associated with the input, as described in column 8, line 17-20. Thus, by selecting the vivid color option, a user is able to understand the results, which is the colors are enhanced. Also, appellant lists examples of printer-independent print-quality characteristics on page 10. According to the specification of the appellant on page 7, line 25-26, it is disclosed, "many other printer-independent print-quality characteristics may be defined." Thus, anyone of the examples seen in Figure 5 of Smith et al. may be defined as a printer-independent print-quality characteristic also.

Therefore, the examiner believes that the rejection of claims 1-13, as cited in the office action dated 10/19/05, under 35 U.S.C. 103(a) as being unpatentable over Smith et al. in view of PCL Color Technical Reference Manual should be maintained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Vincent M. Rudolph



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Conferees:

Mark Zimmerman

A handwritten signature in black ink, appearing to read "Mark Zimmerman", with a long horizontal flourish extending to the right.

MARK ZIMMERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Kimberly Williams

A handwritten signature in black ink, appearing to read "K Williams", with a long horizontal flourish extending to the right.

KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER